

U.S.S.N. 10/604,534

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04122 (LC 0136 PUS)
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In the claims:

1. (Currently Amended) An active keyed locking system for a vehicle comprising:

a fixed position sensor statically generating a magnetic field;
a keyed actuated device comprising a field altering device, said a
keyed actuated device altering said magnetic coupled to said field when
placed in proximity thereto, said fixed altering device;

a non-mechanically operated position sensor proximate to said keyed
actuated device and generating a position signal indicative of the rotational
position of said keyed actuated device based on the alteration of said
statically generated magnetic field in response to detected change in a
magnetic field due to rotation of said field altering device about an axis
extending through said field altering device; and

a controller electrically coupled to said position sensor and enabling at least one vehicle component in response to said position signal.

2. (Original) A system as in claim 1 wherein said keyed actuated device is a lock assembly.

3. (Original) A system as in claim 1 wherein said keyed actuated device is a key.

4. (Original) A system as in claim 3 wherein said key comprises a signal generator generating a transmission signal.

5. (Original) A system as in claim 3 wherein said key comprises a field-altering device.

6. (Original) A system as in claim 3 wherein said key comprises a magnetic device.

7. (Original) A system as in claim 3 wherein said key comprises:
a coil; and

a transponder coupled to said coil and generating a transmission signal.

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8. (Original) A system as in claim 3 wherein said key generates an authorization signal, said controller enabling at least one vehicle component in response to said authorization signal.

9. (Original) A system as in claim 1 wherein said position sensor is selected from at least one of a series of magnets, a coil, a potentiometer, an encoder, an optical sensor, an infrared sensor, a hall effect sensor, a rotary variable differential transformer, a rotary variable inductance transducer, an angular position sensor, or a resolver.

10. (Original) A system as in claim 1 wherein said position sensor is coupled within a base station.

11. (Original) A system as in claim 1 wherein said controller enables a vehicle component selected from at least one of a vehicle accessory, an ignition, a door lock, and a vehicle system in response to said position signal.

12. (Original) A system as in claim 1 further comprising a recognition device recognizing a key and generating a recognition signal wherein said controller enables the active keyed locking system in response to said recognition signal.

13. (Original) A system as in claim 1 wherein said keyed actuated device is a lock assembly, said lock assembly comprising a key antenna.

14. (Currently Amended) An ignition enabling system for a vehicle comprising:

a lock assembly;

a fixed position sensor statically generating an electric field;

a key having a transponder and engageable with said lock assembly such that rotation of said key within said lock assembly enables said transponder to alter said electric field, said fixed position sensor generating a position signal indicative of the rotational position of said key based on the alteration of said statically generated electric field; and

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~~a position sensor sensing position of said key, in response to a change in an electric field proximate said lock assembly due to actuation of said transponder about an axis extending through said transponder, and generating a position signal indicative of said position; and~~

a controller electrically coupled to said position sensor and enabling at least one vehicle component in response to said position signal.

15. (Currently Amended) A method of enabling at least one vehicle component through use of an active keyed locking system comprising:

~~statistically generating a actuating a keyed actuated device to alter a magnetic field using a fixed generated by a position sensor;~~

~~rotating a key actuated device within said magnetic field, said key actuating device including a field altering device;~~

~~monitoring alterations in said statically generated magnetic fields using said fixed position sensor;~~

~~determining the rotational position of said keyed actuated device using a in response to detected change in said magnetic field and generating a position signal generated by said fixed position sensor, said position signal changing in response to said alterations in said statically generated magnetic field; and~~

enabling the at least one vehicle component in response to said position signal.

16. (Original) A method as in claim 15 further comprising:
recognizing a key and generating a recognition signal; and
enabling an active keyed locking system in response to said recognition signal.

17. (Original) A method as in claim 16 further comprising activating a base station in response to said key recognition.

18. (Original) A method as in claim 15 further comprising:
generating a first authorization signal;
generating a second authorization signal in response to said first authorization signal.

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verifying said second authorization signal; and
generating said position signal in response to said verification.

19. (Original) A method as in claim 15 wherein determining position of said keyed actuated device comprises:

generating at least one base signal;
altering said at least one base signal via actuation of said keyed actuated device; and
generating said position signal in response to said alteration of said at least one base signal.

20. (Original) A method as in claim 19 wherein said at least one base signal is modulated using a modulation technique selected from at least one of amplitude modulation, frequency modulation, and phase modulation.